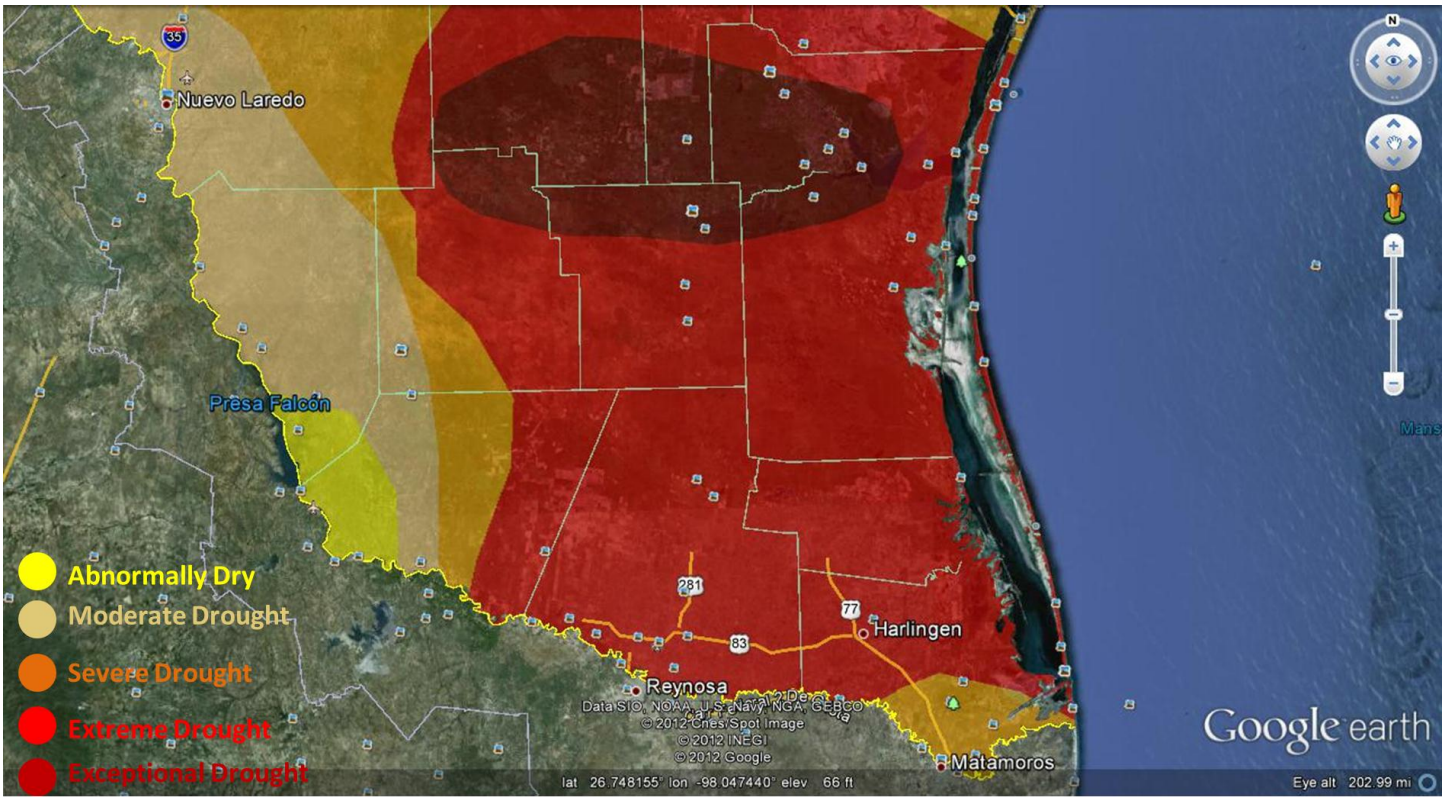


RGV Drought Worsens in Early September 2012

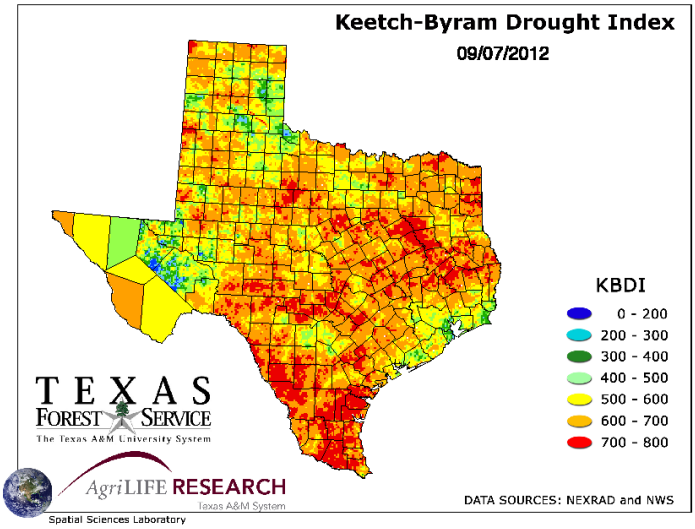
Some Rain, but Little Relief Expected through Mid-Month

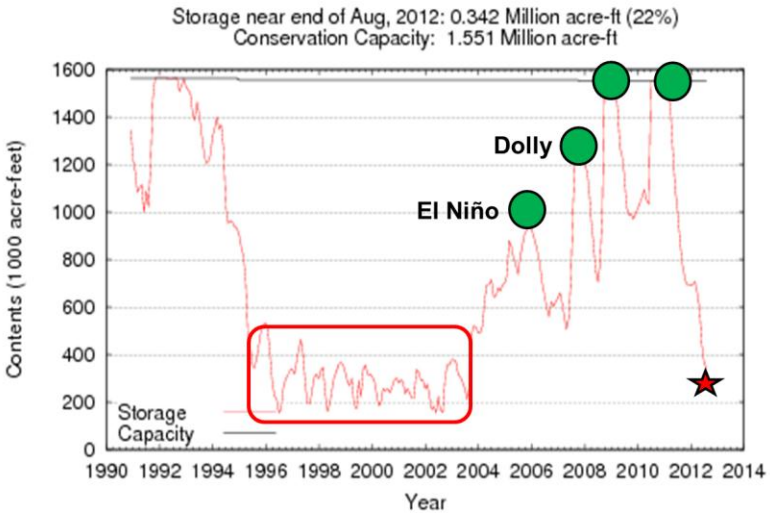
Overview

Triple digit temperatures, rain-free weather, and frequent breezes continued to allow drought conditions to deteriorate across The Rio Grande Valley. The latest United States Drought Monitor (above) showed Extreme Conditions across most of the Rio Grande Valley with the exception of southern Cameron County, which remained in Severe Drought. A pocket of Exceptional Drought continued across populated Brooks and Jim Hogg Counties from Falfurrias to Hebbronville; Abnormally Dry to Severe Drought covered the Rio Grande Plains from central Jim Hogg and Starr County west through Zapata County, where soil moisture remained a little higher due to sporadic summer rains. The Drought continues to affect agricultural interests and water supplies.

Fire Danger

According to the Texas Forest Service, wildfire danger and spread potential is moderate to high across Deep South Texas and the Rio Grande Valley due to abundant dry forage and periods of breezy conditions and lower humidity,. Wildfire danger and spread has become a concern for residents of the Rio Grande Valley. The latest Keetch Byram Drought Indices (KBDI, right) indicated values of 600 To 700 across much of the area. Values ranged between 700 to 800 across Brooks and Hidalgo counties. Residents should contact their local county officials for latest information concerning burn bans, and are reminded that fire danger can change quickly from one day to another when winds and relative humidity values vary.





Agriculture

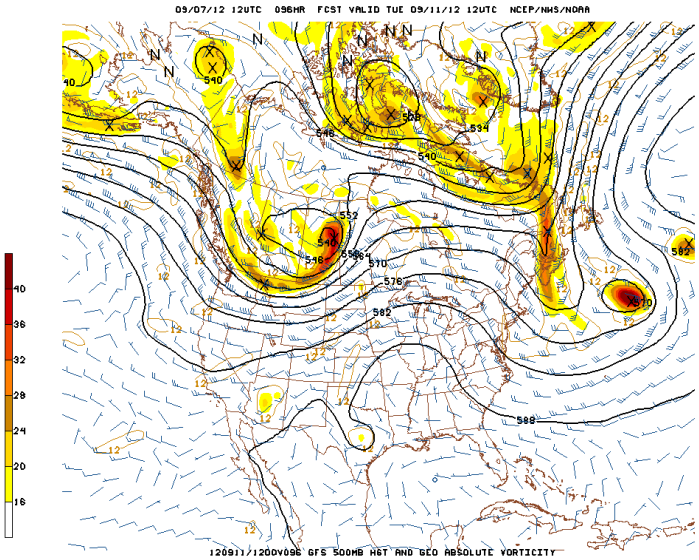
According to the United States Department of Agriculture and Texas Agrilife Extension Service agents, hot, dry and windy conditions continued to cause difficulty with agricultural output. Soil moisture levels ranged from short to very short. Rangeland and pastures continue to worsen; very little standing forage was available, and of poor nutritional value. Hay was scarce and expensive. Stock tanks were either completely dry or nearly so. Dried up stock tanks were causing hardship for livestock and wildlife. In the Lower Valley, vegetable producers were getting Ready for fall planting. Seedbeds were being prepared for onion and cabbage planting. Most row crops harvests were completed.

Water Restrictions and Hydrologic Summary

Due to diminishing reservoir levels (above), drought conditions and lack of rainfall, the Texas Commission on Environmental Quality (TCEQ) has Indicated that irrigation districts in the Lower Rio Grande Valley could face water restrictions toward the end of the year. Several public water supply entities continue voluntary water conservation to avoid shortages or further restrictions, with a few entities under mild restrictions. One public water supply entity in Starr County and another in Zapata County continue severe restrictions. According to TCEQ, there are currently 3 public water supply entities in Cameron, 8 in Hidalgo, 5 in Starr, 3 in Zapata, and 2 in Willacy County that are under water restrictions. Residents of Deep South Texas and the Rio Grande Valley are urged to conserve water.

The Falcon and Amistad International Reservoirs provide much of the water for the Lower Rio Grande Valley. Recent lake levels at Amistad Reservoir have diminished slightly to 53 percent of normal conservation level. Releases from Amistad have allowed storage at Falcon Reservoir to remain steady at 19 percent of normal conservation (above). Levels Below 19 percent of capacity, or 315,000 acre-feet of storage, are the lowest in the reservoir since 1998. Extreme low reservoir levels have become a major concern for ranchers, farmers, and residents of the Lower Rio Grande Valley.

Outlook through Mid September

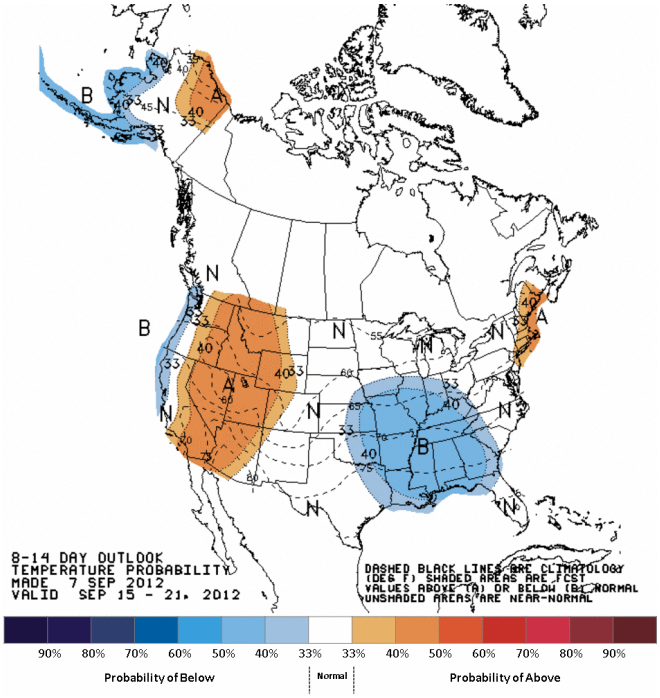


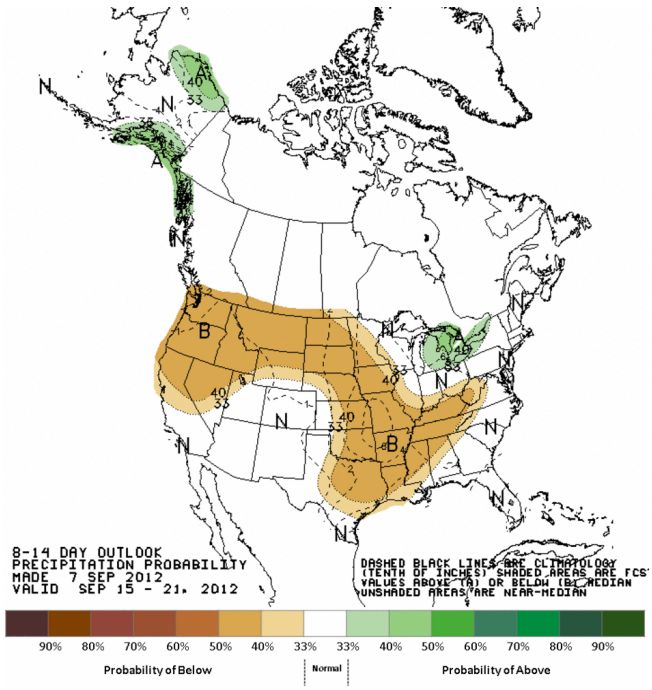
Meteorological: A persistent upper level ridge of high pressure will gradually spread from the Southwest United States into the eastern half of the nation through at least September 13th (right). The ridge will briefly amplify early in the period as an upper level trough deepens a bit and moves across the eastern U.S. A weak front will cross the Rio Grande Valley early Sunday, but provide little more than a several hour period of showers and thunderstorms before moisture is pushed into Mexico and dissipates early the week of September 9th. The eastern U.S. trough will lift by the middle of the week of September 9th, with a temporary ridge developing in the trough's place. A weakness between the eastern U.S. ridge and a flattened southwest U.S. ridge may provide some chance for rain by the 12th and 13th, but a widespread and welcome soaking is not expected. Another upper level trough is expected to head for the eastern half of the country by the end of the week of the 9th; another weak front may aid development of scattered showers and thunderstorms across the Rio Grande Valley by the 15th. The continued strength of the southwest U.S. ridge

will ensure little sufficient tropical moisture can saturate the entire atmosphere for more than fleeting moments. Any rainfall that falls through September will provide only some short term relief from the drought.

Bottom line? Severe to Extreme drought should continue across the region for the foreseeable future.

The eight to fourteen day forecast through September 21st is shown below. Equal chances of above, below, or "normal" temperatures and precipitation are indicated, though the "lean" is toward drier and slightly warmer than average. Climatological highs across the Rio Grande Valley through mid-September normally range from upper 80s to near 90 degrees near the coast to the mid to upper 90s from the mid-Valley (Hidalgo/Brooks) to the Rio Grande Plains. The average early morning temperatures for this same period generally range in the lower to middle 70s.





What's Next?

The long range climate outlook for Deep South Texas and the Rio Grande Valley from mid-September through November 2012, derived from guidance from the NWS' Climate Prediction Center indicates that there is an increasing potential for El Niño conditions to develop in the eastern tropical Pacific Ocean into early fall 2012 and continue into the winter of 2012/2013. Uncertainty remains as to how strong the expected El Niño will become; recent models indicate a weak to possibly moderate episode. As a result of the increasing potential For a developing El Niño, near normal to above normal temperatures are expected. There is also a possibility for above normal rainfall later this autumn into early winter (below), but El Niño is but one part of the picture and more trends need to evolve before any increase in certainty for true drought relief. Any rainfall that affects the region through November 2012 may provide some short term drought relief.